First Named Inventor	Michael H. Coden	**PRELIMINARY AMENDMENT**
Serial No.	Not Assigned Yet	
Filing Date	Herewith	
Group Art Unit	Unknown	
Examiner Name	Unknown	
Attorney Docket No.	100.095US02	
Title: TELECOMMUNICATION NETWORK WITH VARIABLE ADDRESS LEARNING, SWITCHING AND ROUTING		

Commissioner for Patents
BOX PATENT APPLICATION
Washington, D.C. 20231

Prior to taking the above-identified application under consideration, please amend the application as follows:

IN THE SPECIFICATION

On page 1, after the Title, please insert the following paragraph:

This Application is a continuation of U.S. Application Serial No. 09/137,669, filed August 21, 1998, and entitled "Telecommunication Network With Variable Address Learning, Switching And Routing".

Please delete the paragraphs beginning at page 1, line 5 and ending at line 18 and replace them with the following paragraphs:

This application is a continuation-in-part of commonly assigned U.S. Patent No. 6,154,462 issued on November 28, 2000, and entitled *Circuits and Methods for a Ring Network.*

This application is related to the following additional commonly assigned, patent and co-pending applications:

U.S. Patent No. 6,049,824 issued on May 11, 2000, entitled *System and Method for Modifying and Information Signal In a Telecommunications System.*

Application Serial No. 09/138,232, entitled *Transport of Digitized Signals Over a Ring Network.*

Application Serial No. 09/137,722, entitled *Control Data Over a Ring Network.*

Application Serial No. 09/137,721, entitled *Internet Access Over a Ring Network.*

Each of these additional patents and applications is incorporated by reference.

Please delete the paragraph beginning at page 4, line 9 and ending at line 27 and replace it with the following paragraph:

When two terminals attempt to transmit at the same time, there is a collision. The terminals that are involved detect the collision ("Collision Detection", the "CD" in CSMA/CD) by monitoring the data bus for a collision signal or corrupted data packets on the bus after a transmission. In order for all the terminals that have transmitted to realize there is a collision, all the terminals must receive all the packets and collision signals involved. Therefore, the network cannot be any larger than half the distance that the smallest packet will cover from start to finish. At 10 Megabits per second, a 64-byte packet, the minimum Ethernet packet, takes 51.2 microseconds from start to finish. Therefore, a local area network can be no larger than the distance a packet will travel in 25.6 microseconds, including any propagation delays from equipment in the network. At 100 Megabits per second, a 64-byte packet takes 5.12 microseconds from start to finish. Therefore, a local area network can be no larger than the distance the packet will travel in 2.56 microseconds, including any propagation delays from the equipment. When the collision is detected, each of the terminals will wait a random amount of time before attempting to retransmit its packet so as to avoid further collisions on the network. This is in contrast to Token Ring, FDDI, ATM and routers, which because of the centralized deterministic control administered through the use of Tokens and additional protocols do not allow collisions and can therefore transmit data over much longer distances.

Please delete the paragraph beginning at page 10, line 13 and ending at line 20 and replace it with the following paragraph:

In another embodiment, a ring switch for a ring network is provided. The ring switch includes a ring-in port that is coupleable to receive data packets from the ring network. The ring switch further includes a ring-out port that is coupleable to provide data packets to the ring network. At least one local port is also provided. The at least one local port is coupleable to a local area network. The ring switch further includes at least one table to track a selected identifier of network devices associated with the ports of the ring switch. The table associates the selected identifier of network devices with the ring-out port when data packets are received at the ring-in port.

Please delete the paragraph beginning at page 15, line 25 and ending at page 16, line 8 and replace it with the following paragraph:

In an alternative embodiment shown in Figure 11, ring transceivers 1102-1 through 1102-N are coupled to form a unidirectional ring for transmitting Ethernet packets between ring switches of system 1100. Ring switch 1104-1 through 1104-N are associated with ring transceivers 1102-1 through 1102-N, respectively. Ring transceivers 1102-1 through 1102-N may comprise, for example, a number of DV6000 fiber transport systems available from ADC Telecommunications of Minnetonka, Minnesota. The DV6000 provides 16 channels of capacity for transporting data. In this embodiment, only one channel of the DV6000 is used to transmit the Ethernet packets in system 1100. The other channels may be used for additional ring switch networks or other purposes, e.g., video, voice or other data transmission. Alternatively, ring transceivers 1102-1 through 1102-N may be implemented with other conventional transport mechanisms such as, for example, wireless transceivers, fiber optic transceivers, etc.

Please delete the paragraph beginning at page 19, line 12 and ending at line 17 and replace it with the following paragraph:

The VLAN identifier is stripped off the packet before transmission out to the local port to prevent users from gaining access to the signaling used by the switches to implement the VLAN. This provides an added layer of security to the users of the VLAN. Thus, even if the packet is a broadcast or multicast packet, it will not go out all ports. Rather, the packet will only be switched out ports that are designated as members of the VLAN.

Please delete the paragraph beginning at page 20, line 15 and ending at line 26 and replace it with the following paragraph:

The description of the Figures that follow are described in terms of processing packets without specific reference to the use of tags such as VLAN identifiers. It is understood, however, that the processing and systems described herein apply in the tagging context as well by describing processing that occurs within a tagging system. In particular, for example, all references to "broadcast packets", or to the "broadcast" of a packet means that the packet will be broadcast only to devices associated with the same VLAN identifier. Similarly, for example, all references to switching a packet off the ring to a particular device mean that the packet will be switched off the ring, based on the device identifiers, but will not be transmitted on the local ports of the ring switch unless the device that sent the packet (as determined by the source identifier) and the intended recipient (as determined by the destination identifier) are members of the same VLAN.

IN THE CLAIMS

Please cancel claims 62-70.

Remarks

The above amendments to the specification are being made to provide the patent number and serial numbers of related applications and also to correct typographical errors in the specification. Therefore, these amendments do not introduce any new matter.

In the parent application serial no. 09/137,669 claims 1-61 and 71-74 were rejected under 35 U.S.C. §103 as being unpatentable over Chin et al. (U.S. Patent 5,671,421) in view of Simonin (U.S. Patent No. 6,049,824) or unpatentable over Chin et al. in view of Simonin in view of Hurst et al (U.S. Patent No. 6,192,404), Hamada et al. (U.S. Patent No. 5,497,370), or Winiger (U.S. Patent No. 5,845,068). Claims 1-61 and 71-74 are being reintroduced in this continuation in order to remove the reference to Simonin as the subject matter of the present invention and of Simonin, at the time the present invention was made, were subject to an obligation of assignment to the same person (ADC Telecommunications, Inc.). Under recently revised 35 U.S.C. §103 (c) "Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 103 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." As a result, Applicant respectfully asserts that Simonin qualifies under §103(c) and requests that Simonin be removed as prior art.

In addition, in the parent application claim 47 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner stated that in claim 47, line 19, (as found in the parent application) "discarding the data packet" is not clear. As the result of an Examiner interview held on May 11, 2001, the Examiner agreed that the term "discarding" is not ambiguous or indefinite and no change was required to claim 47. As a result the Examiner indicated that the rejection under 35 U.S.C § 112 would be withdrawn.

In view of the foregoing, Applicant respectfully requests allowance of claims 1-61 and 71-74.

Conclusion

Claims 62-70 have been cancelled. Claims 1-61 and 71-74 are now pending in the present application. Applicant believes that the claims are in condition for allowance. If the Examiner has any questions or concerns regarding this application, please contact the undersigned at the number listed below.

Respectfully submitted,

Date: June 27, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Replacement paragraphs for the deleted paragraphs beginning at page 1, line 5 and ending at line 18:

This Application is a continuation-in-part of commonly assigned[, co-pending application serial no. 08/915,919], U.S. Patent No. 6,154,462 issued on November 28, 2000, entitled *Circuits and Methods for a Ring Network*[, filed on August 21, 1998].

This application is related to the following additional commonly assigned, patent and co-pending applications:

[Application Serial No. 08/975,735] U.S. Patent No. 6,049,824 issued on May 11,2000, entitled *System and Method for Modifying and Information Signal In a Telecommunications System*[, filed on November 21, 1997].

Application Serial No.[_____] 09/138,232, entitled *Transport of Digitized Signals Over a Ring Network* [(Attorney Docket # 500.705US1)].

Application Serial No. [_____] 09/137,722, entitled *Control Data Over a Ring Network* [(Attorney Docket # 500.707US1)].

Application Serial No. [_____] 09/137,721, entitled *Internet Access Over a Ring Network* [(Attorney Docket No. 500.708US1)].

Each of these additional patents and applications is incorporated by reference.

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smallest packet will cover from start to finish. At 10 Megabits per second, a 64-byte packet, the minimum Ethernet packet, takes 51.2 microseconds from start to finish. Therefore, a local area network can be no larger than the distance a packet will travel in 25.6 microseconds, including any propagation delays from equipment in the network. At 100 Megabits per second, a 64-byte packet takes 5.12 microseconds from start to finish. Therefore, a local area network can be no larger than the distance the packet will travel in 2.56 microseconds, including any propagation delays from the equipment. When the collision is detected, each of the terminals will wait a random amount of time before attempting to retransmit its packet so as to avoid further collisions on the network. This is in contrast to Token Ring, FDDI, ATM and routers, which because of the centralized deterministic control administered through the use of Tokens and additional protocols do [no] not allow collisions and can therefore transmit data over much longer distances.

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associated with ring transceivers 1102-1 through 1102-N, respectively. Ring transceivers 1102-1 through 1102-N may comprise, for example, a number of DV6000 fiber transport systems available from ADC Telecommunications of Minnetonka, Minnesota. The DV6000 provides 16 channels of capacity for transporting data. In this embodiment, only one channel of the DV6000 is used to transmit the Ethernet packets in system 1100. The other channels may be used for additional ring switch networks or other purposes, e.g., video, voice or other data transmission. Alternatively, ring transceivers [102-1] 1102-1 through [102-N] 1102-1 may be implemented with other conventional transport mechanisms such as, for example, wireless transceivers, fiber optic transceivers, etc.

Replacement paragraph for the deleted paragraph beginning at page 19, line 12 and ending at line 17:

The VLAN identifier is stripped off the packet before transmission out to the local port to prevent users from gaining access to the signaling used by the switches to implement the VLAN. This provides an added layer of security to the users of the VLAN. Thus, even if the packet is a broadcast or multicast packet, it will not go out all ports. Rather, the packet will only be switched out ports that are designated as members of the VLAN.

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device identifiers, but will not be transmitted on the local ports of the ring switch unless the device that sent the packet (as determined by the source identifier) and the intended recipient (as determined by the destination identifier) are members of the same VLAN.